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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/787,266
Filing Date: February 26, 2004
Appellant(s): CULERON ET AL.

Idris N. Mckelvey
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on May 18, 2010 appealing from the Office action mailed on December 21, 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: claims 1-8, 11-15.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection to be reviewed on appeal are the same as stated in the final rejection.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,075,026	LOTH et al.	12-1991
6,612,468	PRITCHETT et al.	9-2003
5,679,630	BAECK et al.	10-1997
6,114,298	PETRI et al.	9-2000
5,431,345	LUND et al.	7-1995

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

9.1. Claims 1-4, 6-8, 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loth et al. (US Patent No. 5,075,026), hereinafter "Loth" in view of Pritchett et al. (US Patent No. 6,612,468), hereinafter "Pritchett".

Loth teaches an improved all-purpose liquid cleaner in the form of a dilute microemulsion composition containing 1% to 10% by weight of an anionic detergent, 2 to 10% by weight of cosurfactant, 0.4% to 10% by weight of perfume and the balance water, or a concentrated microemulsion composition (which read on protomicroemulsion) containing by weight, 18% to 65% of anionic and nonionic detergent, 2% to 30% of cosurfactant, 10% to 50% of perfume and the balance water which upon dilution with water will yield said dilute o/w microemulsion composition (see abstract; col. 1, lines 5-9). The dilute o/w microemulsion detergent cleaning compositions of the present invention may often include as much as about 0.2% to about 7% by weight, based on the total composition, of terpene solvents introduced thereinto via the perfume component (see col. 5, lines 15-21). In final form, the all-

purpose liquids are clear oil-in-water microemulsions (see col. 13, lines 25-27), hence, the perfumes are non-visible droplets having diameters within those recited, and should have water solubility within those recited. The microemulsion is also construed to read on Newtonian fluids. The liquids are readily pourable and exhibit a viscosity in the range of 6 to 60 centipoises (equivalent to 0.06Pas) as measured at 25°C with a Brookfield RVT Viscometer using a #1 spindle rotating at 20 RPM (see col. 13, lines 31-36). When intended for use in the neat form, the liquid compositions can be packaged under pressure in an aerosol container or in a pump-type sprayer for the so-called spray-and-wipe type of application (see col. 13, lines 45-48). Loth, however, fails to disclose the liquid composition in a foam generating dispenser which includes a gas imparting mechanism to form the foam from air via an air injection piston, foam-generating aperture, an impinging surface, a mesh or net, a pump and a sprayer, wherein a mesh and/or sponge is located slightly within, and/or at the tip of the nozzle of said dispenser; and wherein the dispenser generates a foam having a foam to weight ratio greater than about 2 ml/g.

Pritchett discloses that over the last 15 years or so the use of foam dispensers based on aerosols using pressurized gas has declined steeply for environmental reasons, leading to the development of foaming dispensers which exploit a manual pumping action to blend air and liquid and create foam (see col. 1, lines 13-17), thus the invention of a foam dispenser as follows. Pritchett teaches a hand operated non-aerosol foam dispenser comprising a combined liquid pump and air pump for mounting at the top of a container of foamable liquid, the liquid pump having a liquid cylinder and a liquid

piston defining between them a liquid chamber, the air pump having an air cylinder and an air piston defining between them an air chamber, and the liquid piston and air piston being reciprocable together in their respective cylinders by the action of a pump plunger which carries said pistons; an air inlet valve and liquid inlet valve being provided for the air chamber and liquid chamber respectively; an air discharge passage and a liquid discharge passage leading from the air chamber and the liquid chamber respectively, the air discharge passage and liquid discharge passage meeting one another for mixing the pumped air and liquid which passes to an outlet passage of the dispenser by way of a permeable foam regulation element; one or more vent openings being provided to admit air into a cap chamber and into the air chamber through the air inlet valve (see abstract; claims). The preferred foam-generating element uses one or more layers of mesh to produce a uniform foam for discharge (see col. 3, lines 40-46). Pritchett also teaches that the nozzle **12** communicates with an inner axial downwardly open tube **11** which forms a top foamer unit housing, and fitting closely in tube **11** is a cylindrical plastic tube **81** having ultrasonically welded across its open ends a disk of coarse nylon mesh **82** (bottom end) and fine nylon mesh **83** (top end), (see col. 7, lines 35-45 and Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to package the liquid cleaner of Loth in the foam dispenser of Pritchett because the dispensers based on aerosols using pressurized gas is now replaced by foam dispensers for environmental reasons as taught by Pritchett, and to

reasonably expect the foam to weight ratio to be within those recited because similar ingredients and dispensers have been utilized.

9.2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loth and Pritchett as applied to the above claims, and further in view of Baeck et al. (US Patent No. 5,679,630), hereinafter "Baeck".

Loth and Pritchett teaches the features as described above. Loth and Pritchett, however, fail to disclose the incorporation of enzymes into the composition.

Baeck teaches protease enzymes having improved proteolytic activity, substrate specificity, stability and/or enhanced performance (see col. 1, lines 53-58) which can be used in any detergent composition or concentrated detergent compositions where high sudsing and/or good insoluble substrate removal are desired (see col. 21, lines 1-12) such as in cleaning fabrics, cleaning dishes and for personal cleansing (see col. 2, lines 16-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate enzymes into the composition of Loth and Pritchett because this would provide improved proteolytic activity, substrate specificity, stability and/or enhanced performance as taught by Baeck.

9.3. Claims 1-8, 11, 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petri et al. (US Patent No. 6,114,298), hereinafter "Petri" in view of Pritchett et al. (US Patent No. 6,612,468), hereinafter "Pritchett".

Petri teaches a microemulsion suitable for disinfecting a surface (see col. 2, lines 48-49), such as dishes (see col. 14, line 59), comprising a surfactant, an aqueous phase comprising a bleach, and droplets dispersed in said aqueous phase, said droplets comprising an essential oil or an active thereof (see abstract; col. 2, lines 48-53). The aqueous phase of the microemulsions comprises at least water (see col. 8, lines 58-63) and may comprise as a preferred optional ingredient, a hydroxylated solvent (se col. 9, lines 51-53), such as glycol ethers (see col. 10, lines 1-25) and aliphatic alcohols such as ethanol (see col. 10, lines 45-53). The microemulsions may comprise as an optional ingredient, other solvents including terpene (see col. 11, lines 1-13), which terpene read on the "low water-soluble oil having a solubility in water of less than about 5000 ppm as required in claim 14. The microemulsion may further comprise a variety of other optional ingredients such as enzymes (see col. 11, lines 19-24). The microemulsion is also construed to read on Newtonian fluids. The microemulsions may be packaged in a variety of suitable detergent packaging known to those skilled in the art, for example, spray dispenser, preferably in a trigger spray dispenser or in a pump spray dispenser, and may include manually operated foam trigger-type dispensers (see col. 16, lines 23-44). Petri, however, fails to specifically disclose the microemulsion in a foam generating dispenser which includes a gas imparting mechanism to form the foam from air via an air injection piston, foam-generating aperture, an impinging surface, a mesh or net, a pump and a sprayer, wherein a mesh and/or sponge is located slightly within, and/or at the tip of the nozzle of

said dispenser; and wherein the dispenser generates a foam having a foam to weight ratio greater than about 2 ml/g.

Pritchett teaches the features as described above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to package the microemulsion of Petri in the non-aerosol foam dispenser of Pritchett because Petri teaches in col. 16, lines 23-44 that the microemulsions may be packaged in a variety of suitable detergent packaging known to those skilled in the art, and Pritchett teaches such dispenser, and to reasonably expect the foam to weight ratio to be within those recited because similar ingredients and dispensers have been utilized.

9.4. Claims 1-8, 11, 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petri et al. (US Patent No. 6,114,298), hereinafter “Petri” in view of Lund et al. (US Patent No. 5,431,345), hereinafter "Lund".

Petri teaches the features as described above. Petri, however, fails to specifically disclose the microemulsion in a foam generating dispenser which includes a gas imparting mechanism to form the foam from air via an air injection piston, foam-generating aperture, a mesh or net, a pump, an additional mesh and/or sponge located slightly within, and/or at the tip of the nozzle, and a sprayer, and the foam to weight ratio as those recited.

Lund teaches a foam dispensing system that transforms spray droplets into a foamed spray via a foaming nozzle (see col. 1, lines 14-16) having a screen which has

a plurality of screen openings having a mesh range from 30 to 60 openings per linear inch (see abstract) and produces a high quality foamed spray (see col. 3, lines 58-64). The means for producing a spray of droplets is preferably a manually-actuated pump sprayer placed in fluid communication with and attached to a container of foamable liquid, and the pump sprayer includes a spray discharge orifice having a diameter from about 0.40 mm to 0.80 mm (see col. 4, lines 51-56). The screens used in the present invention consist of a plurality of evenly or unevenly distributed openings of equal or dissimilar size, which can be circular, square or of any other shape, can be woven using any fabric-like material such as nylon, polyester, or any metallic materials such as steel, or can also be made of molded materials such as polyethylene or polypropylene or any other thermoplastic or thermoset, and these screens or combination of screens can be placed at any angle or orientation with respect to spray discharge orifice 118 (see col. 5, line 58 to col. 6, line 4). At least one screen is required to properly foam the liquid spray, however, multiple screens may be employed to perform the same task (see col. 5, lines 52-55). Bottle venting is accomplished when secondary piston 92 slides beyond a vent hole 90, allowing ambient air to replace the product that has been dispensed from container 30 (see col. 6, lines 40-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to package the microemulsion of Petri in the non-aerosol foam dispensing system of Lund because Petri teaches in col. 16, lines 23-44 that the microemulsions may be packaged in a variety of suitable detergent packaging known to those skilled in the art, and Lund teaches such dispenser which provides a high quality

foamed spray, and to reasonably expect the foam to weight ratio to be within those recited because similar ingredients and dispensers have been utilized.

9.5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petri in view of Pritchett, **or** Petri in view of Lund, as applied to the above claims, and further in view of Loth.

Petri in view of Pritchett **or** Lund teach the features as described above. Petri in view of Pritchett **or** Lund, however, fails to disclose protomicroemulsion.

Loth, an analogous art teaches the features as described above. In particular, Loth teaches that the microemulsion can be prepared in concentrated form (see abstract; col. 1, lines 5-9), which concentrated form read on protomicroemulsion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have prepared the microemulsion of Petri in concentrated form, or as a protomicroemulsion, because it is known from Loth that microemulsions can be prepared in concentrated form, which can be later diluted, for convenience in handling.

(10) Response to Argument

Appellant states that claims 1-8 and 11-15 are rejected under 35 USC §103(a) as being unpatentable over Loth in view of Pritchett.

However, please note that in the final rejection, the claims which are rejected over Loth in view of Pritchett under 35 USC §103(a) are claims 1-4, 6-8 and 11-15.

With respect to the obviousness rejection based upon Loth in view of Pritchett, Appellant argues that Pritchett fails to teach or suggest a mesh located slightly within its *nozzle,* and that the Examiner has erred in her conclusion that the nozzle (12) and axial tube (11), disclosed by Pritchett, are equivalent features. Appellant also argues that the meshes of Pritchett are located only within the tube (11) and Pritchett fails to otherwise teach or suggest a mesh within the nozzle (12), and therefore, nothing in Pritchett teaches or suggests a mesh located "slightly within" the nozzle according to Appellants' claims.

The Examiner respectfully disagrees with the above arguments because, as stated in the final rejection, and in the advisory action action, the present claim 1 requires "a mesh and/or sponge located slightly within, and/or at the tip of the nozzle of said dispenser", and the secondary reference to Pritchett teaches that the nozzle 12 communicates with an inner axial downwardly open tube 11 which forms a top foamer unit housing, and fitting closely in tube 11 is a cylindrical plastic tube 81 having ultrasonically welded across its open ends a disk of coarse nylon mesh 82 (bottom end) and fine nylon mesh 83 (top end), (see col. 7, lines 35-45 and Figure 1 in Pritchett). It is clear from this teaching and Figure 1 that mesh 83 and mesh 82 are located at the top foamer unit housing which contains the nozzle, and mesh 83, as seen in Figure 1 is in the interior passage of the nozzle, or slightly within the nozzle. Even assuming that the mesh is not slightly within the nozzle, in col. 3, lines 53-55, Pritchett teaches, in another aspect, that the foam-generating element (i.e., one or more layers of mesh as disclosed in col. 3, lines 40-41) is fixed in or beneath the fixed nozzle component, instead of being

in the plunger as in prior art designs (underlinings supplied). Hence, this teaching reads on the "...mesh…is located slightly within, and/or at the tip of the nozzle of said dispenser" of the present claims.

Appellant also argues that when Pritchett is considered in combination with the remaining references, Lund and Loth, the various orientations of the mesh do not reconcile the deficiencies of Pritchett. Appellant also argues that Lund and Loth teach various angles and orientations of the mesh material, but neither reference teaches the mesh being located slightly inside the nozzle, and therefore, one of ordinary skill in the art would not be motivated to change the location of the mesh from the tube (11) of Pritchett, and place it within the nozzle (12).

The Examiner respectfully disagrees with the above arguments because, first of all, Pritchett was used as a secondary reference with Loth, and separately with Petri, not Pritchett in combination with Lund and Loth, as disclosed in the final rejection and which is repeated in paragraph 9 above. With respect to the combination of Loth and Pritchett, the above response applies here as well.

With respect to the rejection of: claims 1-8, 11, 13-15 under 35 U.S.C. 103(a) as being unpatentable over Petri in view of Pritchett; claims 1-8, 11, 13-15 under 35 U.S.C. 103(a) as being unpatentable over Petri in view of Lund; and claim 12 under 35 U.S.C. 103(a) as being unpatentable over Petri in view of Pritchett, **or** Petri in view of Lund, as applied to the above claims, and further in view of Loth, Appellants are silent to these rejections, therefore, the rejections over said references as stated in the final rejection and which is repeated in paragraphs 9.3 through 9.5 above, are maintained.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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